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NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	AUG 06	CAS REGISTRY enhanced with new experimental property tags
NEWS 3	AUG 06	FSTA enhanced with new thesaurus edition
NEWS 4	AUG 13	CA/CAplus enhanced with additional kind codes for granted patents
NEWS 5	AUG 20	CA/CAplus enhanced with CAS indexing in pre-1907 records
NEWS 6	AUG 27	Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB
NEWS 7	AUG 27	USPATOLD now available on STN
NEWS 8	AUG 28	CAS REGISTRY enhanced with additional experimental spectral property data
NEWS 9	SEP 07	STN AnaVist, Version 2.0, now available with Derwent World Patents Index
NEWS 10	SEP 13	FORIS renamed to SOFIS
NEWS 11	SEP 13	INPADOCDB enhanced with monthly SDI frequency
NEWS 12	SEP 17	CA/CAplus enhanced with printed CA page images from 1967-1998
NEWS 13	SEP 17	CAplus coverage extended to include traditional medicine patents
NEWS 14	SEP 24	EMBASE, EMBAL, and LEMBASE reloaded with enhancements
NEWS 15	OCT 02	CA/CAplus enhanced with pre-1907 records from Chemisches Zentralblatt
NEWS 16	OCT 19	BEILSTEIN updated with new compounds
NEWS 17	NOV 15	Derwent Indian patent publication number format enhanced
NEWS 18	NOV 19	WPIX enhanced with XML display format
NEWS 19	NOV 30	ICSD reloaded with enhancements
NEWS 20	DEC 04	LINPADOCDB now available on STN
NEWS 21	DEC 14	BEILSTEIN pricing structure to change
NEWS 22	DEC 17	USPATOLD added to additional database clusters
NEWS 23	DEC 17	IMSDRUGCONF removed from database clusters and STN
NEWS 24	DEC 17	DGENE now includes more than 10 million sequences
NEWS 25	DEC 17	TOXCENTER enhanced with 2008 MeSH vocabulary in MEDLINE segment
NEWS 26	DEC 17	MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary
NEWS 27	DEC 17	CA/CAplus enhanced with new custom IPC display formats
NEWS 28	DEC 17	STN Viewer enhanced with full-text patent content from USPATOLD
NEWS 29	JAN 02	STN pricing information for 2008 now available
NEWS 30	JAN 16	CAS patent coverage enhanced to include exemplified prophetic substances
NEWS 31	JAN 28	USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats
NEWS 32	JAN 28	MARPAT searching enhanced
NEWS 33	JAN 28	USGENE now provides USPTO sequence data within 3 days of publication
NEWS 34	JAN 28	TOXCENTER enhanced with reloaded MEDLINE segment
NEWS 35	JAN 28	MEDLINE and LMEDLINE reloaded with enhancements

```
 NEWS EXPRESS  19 SEPTEMBER 2007:  CURRENT WINDOWS VERSION IS V8.2,
               CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 19 SEPTEMBER 2007.

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
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* * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 09:23:51 ON 04 FEB 2008

=> Washing (l) buffer
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Some commands only work in certain files.  For example, the EXPAND
command can only be used to look at the index in a file which has an
index.  Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of
commands which can be used in this file.

=> file caplus
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                0.63       0.63

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FILE COVERS 1907 - 4 Feb 2008  VOL 148 ISS 6
FILE LAST UPDATED: 3 Feb 2008  (20080203/ED)

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They are available for your review at:

http://www.cas.org/infopolicy.html

=> Tris
L1      131062 TRIS

=> pH9
L2          144 PH9

=> pH10
```

```
L3          119 PH10

=> L1 and L2
L4            9 L1 AND L2

=> L1 and L3
L5            2 L1 AND L3

=> BSA
         17957 BSA
            87 BSAS
L6       18005 BSA
                (BSA OR BSAS)

=> L6 and L4
L7            1 L6 AND L4

=> D L7 IBIIB ABS
'IBIIB' IS NOT A VALID FORMAT FOR FILE 'CAPLUS'

The following are valid formats:

ABS --------- GI and AB
ALL --------- BIB, AB, IND, RE
APPS -------- AI, PRAI
BIB --------- AN, plus Bibliographic Data and PI table (default)
CAN --------- List of CA abstract numbers without answer numbers
CBIB -------- AN, plus Compressed Bibliographic Data
CLASS ------- IPC, NCL, ECLA, FTERM
DALL -------- ALL, delimited (end of each field identified)
DMAX -------- MAX, delimited for post-processing
FAM --------- AN, PI and PRAI in table, plus Patent Family data
FBIB -------- AN, BIB, plus Patent FAM
IND --------- Indexing data
IPC --------- International Patent Classifications
MAX --------- ALL, plus Patent FAM, RE
PATS -------- PI, SO
SAM --------- CC, SX, TI, ST, IT
SCAN -------- CC, SX, TI, ST, IT (random display, no answer numbers;
              SCAN must be entered on the same line as the DISPLAY,
              e.g., D SCAN or DISPLAY SCAN)
STD --------- BIB, CLASS

IABS -------- ABS, indented with text labels
IALL -------- ALL, indented with text labels
IBIB -------- BIB, indented with text labels
IMAX -------- MAX, indented with text labels
ISTD -------- STD, indented with text labels

OBIB -------- AN, plus Bibliographic Data (original)
OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

HIT --------- Fields containing hit terms
HITIND ------ IC, ICA, ICI, NCL, CC and index field (ST and IT)
              containing hit terms
HITRN ------- HIT RN and its text modification
HITSTR ------ HIT RN, its text modification, its CA index name, and
              its structure diagram
HITSEQ ------ HIT RN, its text modification, its CA index name, its
              structure diagram, plus NTE and SEQ fields
FHITSTR ----- First HIT RN, its text modification, its CA index name, and
```

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              its structure diagram
FHITSEQ ----- First HIT RN, its text modification, its CA index name, its
              structure diagram, plus NTE and SEQ fields
KWIC -------- Hit term plus 20 words on either side
OCC --------- Number of occurrence of hit term and field in which it occurs

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codes.  For a list of the display field codes, enter HELP DFIELDS at
an arrow prompt (=>).  Examples of formats include: TI; TI,AU; BIB,ST;
TI,IND; TI,SO.  You may specify the format fields in any order and the
information will be displayed in the same order as the format
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FHITSTR, HITSEQ, FHITSEQ, KWIC, and OCC) may be used with DISPLAY ACC
to view a specified Accession Number.
ENTER DISPLAY FORMAT (BIB):IBIB

L7   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2007:1057873  CAPLUS
TITLE:                    Establishment of ISSR reaction system of Sargentodoxa
                          cuneata
AUTHOR(S):                Cai, Yan-lin; Jin, Ze-xin; Li, Jun-min
CORPORATE SOURCE:         College of Life Science, Hangzhou Normal University,
                          Hangzhou, 310018, Peop. Rep. China
SOURCE:                   Jiangxi Nongye Daxue Xuebao (2006), 28(4), 583-586
                          CODEN: JNXUEV; ISSN: 1000-2286
PUBLISHER:                Jiangxi Nongye Daxue Xuebao Bianjibu
DOCUMENT TYPE:            Journal
LANGUAGE:                 Chinese


=> D L7 IBIB ABS

L7   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2007:1057873  CAPLUS
TITLE:                    Establishment of ISSR reaction system of Sargentodoxa
                          cuneata
AUTHOR(S):                Cai, Yan-lin; Jin, Ze-xin; Li, Jun-min
CORPORATE SOURCE:         College of Life Science, Hangzhou Normal University,
                          Hangzhou, 310018, Peop. Rep. China
SOURCE:                   Jiangxi Nongye Daxue Xuebao (2006), 28(4), 583-586
                          CODEN: JNXUEV; ISSN: 1000-2286
PUBLISHER:                Jiangxi Nongye Daxue Xuebao Bianjibu
DOCUMENT TYPE:            Journal
LANGUAGE:                 Chinese
AB   The genomic DNA of Sargentodoxa cuneata was extracted with improved SDS
     method.  The effect of the concentration of Mg2+, dNTP, DNA template, primer,
Taq
     DNA polymerase and bovine serum albumin on ISSR amplification of
     Sargentodoxa cuneata was tested and the suitable ISSR reaction system was
     established as follows: 4 + Taq polymerase corresponding buffer (10
     mmol/L Tris - HCl, pH9.0, 50 mmol/L KCl, 1 g/L Triton
     X - 100), 0.5U Taq DNA polymerase, 2 mmol/L MgCl2, 0.1 mol/L 4 +
     dNTP, 12 pmol primer, 10 ng template DNA and 2 mg/mL BSA in
     total 10 μL PCR reaction volume  The suitable annealing temperature in the
ISSR
     - PCR reaction system was 52.4 °C.


=> cross (p) linking
        545016 CROSS
         20121 CROSSES
        562293 CROSS
```

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                (CROSS OR CROSSES)
         48753 LINKING
           531 LINKINGS
         49166 LINKING
                (LINKING OR LINKINGS)
L8       14956 CROSS (P) LINKING

=> Borate and L8
         70213 BORATE
         11401 BORATES
         74557 BORATE
                (BORATE OR BORATES)
L9          80 BORATE AND L8

=> pH9
L10        144 PH9

=> L10 and L9
L11          0 L10 AND L9

=> antibody and L9
        323887 ANTIBODY
        386791 ANTIBODIES
        513393 ANTIBODY
                (ANTIBODY OR ANTIBODIES)
L12          2 ANTIBODY AND L9

=> D L12 IBIB ABS 1-2

L12  ANSWER 1 OF 2  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2007:1293316  CAPLUS
DOCUMENT NUMBER:          147:517706
TITLE:                    Process for cross-linking moieties
                          for medicinal and diagnostic use
INVENTOR(S):              Mock, Graham
PATENT ASSIGNEE(S):       UK
SOURCE:                   Brit. UK Pat. Appl., 44pp.
                          CODEN: BAXXDU
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     --------------       ----   --------    --------------------    --------
     GB 2438088            A     20071114    GB 2007-9127            20070511
     WO 2007132207         A2    20071122    WO 2007-GB1745          20070511
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA,
             CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB,
             GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM,
             KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK,
             MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
             RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,
             TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
             GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
             BY, KG, KZ, MD, RU, TJ, TM
PRIORITY APPLN. INFO.:                       GB 2006-9370        A  20060511
OTHER SOURCE(S):          MARPAT 147:517706
GI
```

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB A process for linking a first moiety, wherein the first moiety is not a cell membrane or cell membrane fraction and is equipped with one or more free amino groups, comprising: conjugating the first moiety with a linker I or II: wherein Y is an organic linker with 2-10 carbon atoms in the backbone; m and n are 1-3; and R1-R20 are H or substituents with preferred compds. featuring SO3Na substituents on the rings; the first moiety-linker conjugate may then be reacted with a second moiety to form the conjugated product. The process is particularly useful for linking a first moiety, such as a nucleic acid or protein, with a second moiety, such as an antibody or enzyme. Preferred linkers are 4,4'-diisothiocyanato-2.2'-stilbenedisulfonic acid (DIDS) and dimers thereof of general formula II formed with a central amine compound The conjugates formed, their medicinal or diagnostic use and dimer compds. of general formula II are also claimed. DIDS was added to horseradish peroxidase in borate buffer. After half an hour, monoclonal antibody to human chorionic gonadotropin was added. The product was purified by anion exchange chromatog.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1962:9071 CAPLUS
DOCUMENT NUMBER: 56:9071
ORIGINAL REFERENCE NO.: 56:1735i,1736a
TITLE: A new two-stage method for cross-linking proteins
AUTHOR(S): Borek, Felix
CORPORATE SOURCE: Armed Forces Inst. of Pathol., Washington, DC
SOURCE: Nature (London, United Kingdom) (1961), 191, 1293-4
CODEN: NATUAS; ISSN: 0028-0836
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Ferritin and rabbit globulin in citrate buffer (pH 5) were stirred at 4° with dianisidine (I) and NaNO2 in 0.017N HCl for 2 hrs., dialyzed against 0.08M borate (pH 9.4) and finally against neutral saline to yield after separation by electrophoresis a conjugate of intermediate mobility, which reacted with both antiferritin and antirabbit globulin. Similar conjugates prepared from tobacco mosaic antibodies and Forssman antibodies using I had higher antibody activity than those prepared using toluene 2,4-diisocyanate.

=> FIL STNGUIDE

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	31.42	32.05

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-2.40	-2.40

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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Feb 1, 2008 (20080201/UP).

=> 1. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Tobia et al. (Nath. J. PL. path. 1982, Vol. 88, pp. 171-183).

MISSING OPERATOR '102(B'
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.06	32.11

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-2.40

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FILE COVERS 1907 - 4 Feb 2008 VOL 148 ISS 6
FILE LAST UPDATED: 3 Feb 2008 (20080203/ED)

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=> TBST
L13 11 TBST

=> L2 and L13
L14 0 L2 AND L13

=> washiing and L134
L134 NOT FOUND
The L-number entered could not be found. To see the definition
of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> washing and L13
188601 WASHING
14036 WASHINGS
199925 WASHING
(WASHING OR WASHINGS)
L15 3 WASHING AND L13

=> D L15 IBIB ABS 1-3

L15 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:619868 CAPLUS
DOCUMENT NUMBER: 147:26442
TITLE: Removal of embedding medium
INVENTOR(S): Winther, Lars; Lindberg, Martin
PATENT ASSIGNEE(S): Dako Denmark A/S, Den.
SOURCE: PCT Int. Appl., 95pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007062649	A1	20070607	WO 2006-DK660	20061124
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1793218	A1	20070606	EP 2006-799	20060116
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				

PRIORITY APPLN. INFO.: US 2005-740789P P 20051130
EP 2006-799 A 20060116

AB A method, apparatus and system are described for automated removal of an embedding medium from an embedded biol. sample. The method comprises the steps of: providing an automated sample processing apparatus having an automated process operation capability that causes automated process operation events through robotic sample process functions; providing a clearing solvent, e.g. an organic solvent, capable of lowering the m.p. of an embedding medium and/or dissolving an embedding medium; loading a plurality of carriers with embedded biol. samples in the automated sample processing apparatus; exposing an embedded biol. sample to the clearing solvent, whereby the embedding medium is liquefied; and providing a washing solution capable of removing the clearing solvent and the liquefied embedded medium from said biol. sample, said clearing solvent and said washing solution being immiscible. Formalin-fixed paraffin-embedded tissue on slides was deparaffinized by horizontal dewaxing with Histo-Clear on the AutostainerTM. Rehydration/ washing was done with TBST (Tris-buffered saline Tween-20), followed by target retrieval, immunostaining, and Hematoxylin and H/E staining. The slides were evaluated and were found to be acceptable regarding dewaxing.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:479311 CAPLUS
DOCUMENT NUMBER: 141:312941
TITLE: Monoclonal anti-hypoxia inducible factor 1α antibody for screening antianemic peptides derived from phage display library
INVENTOR(S): Wang, Bin; Zhang, Aixia; Xiao, Jigao
PATENT ASSIGNEE(S): Nanjing Medical University, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 10 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1398895	A	20030226	CN 2002-138179	20020828

PRIORITY APPLN. INFO.: CN 2002-138179 20020828

AB The disclosed hypoxia-inducible factor 1-associated peptides contain peptide sequence of GlyProHisHisTyrTrpTyrHisLeuArgLeuPro. The HIF1-associated peptides are screened from phage display peptide library by ELISA using plate-immobilized monoclonal anti-HIF1α antibody and washing buffers containing TBST and/ro Tween-20. The peptide library is expanded in Escherichia coli ER2378 culture medium. The HIF1 associated peptide may be used as medicine for treating hypoxic, hypoxemic and anemic diseases.

L15 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:18822 CAPLUS
DOCUMENT NUMBER: 140:56024
TITLE: Assay for transformed alpha fetal protein
INVENTOR(S): Mizejewski, Gerald J.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 5 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004005640	A1	20040108	US 2003-424018	20030425

PRIORITY APPLN. INFO.: US 2002-375576P P 20020425

AB A method for determining the existence of transformed alpha fetal protein in a sample. The first step is mixing said reagents by inversion before use. The second step is providing a microtiter plate with wells coated with synthetic TAFP diluted in a coating buffer, dispensing PSB buffer to wet the well surfaces, waiting a period of time and decanting the microtiter plate. The third step is providing a first washing of the well(s) with a wash buffer for removing unbound material. The fourth step is adding non-fat dry milk to the coating buffer and incubating the microtiter plate for a first period of time at room temperature for blocking nonspecific binding sites. The fifth step is providing a second washing of the well with a wash buffer for removing unbound material. The sixth step is adding anti-TAFP antibody diluted in a binding buffer for a second period of time for allowing the primary antipetide antibodies to bind. The seventh step is providing a third washing of the well(s) with a wash buffer for removing unbound material. The eighth step is adding diluted goat anti-rabbit immunoglobuin-horseradish peroxidase conjugate in TBST for binding of the primary to the secondary antibody and then incubating for a third period of time. The ninth step is providing a fourth washing of the well(s) with a TBST-containing buffer for removing unbound material. The tenth step is adding horseradish peroxidase substrate and incubating at room temperature for developing color. The eleventh step is adding stop solution to said well after a fourth period of time for stopping the test. Finally, the twelfth step is determining the absorbance of the alpha fetal protein peptide at a wavelength using a microplate reader.

```
=> alkaliine (w) buffer
L18             0 ALKALIINE (W) BUFFER

=> borate (w) buffer
L19          8394 BORATE (W) BUFFER

=> pH9
L20           250 PH9

=> L19 and L20
L21             2 L19 AND L20

=> antibody
L22       1180705 ANTIBODY

=> L22 and l21
L23             1 L22 AND L21

=> D L23 IBIB ABS

L23  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         1989:403468  CAPLUS
DOCUMENT NUMBER:          111:3468
TITLE:                    The production of phospholipase A2 conjugates with
                          tobacco mosaic virus and their properties
AUTHOR(S):                Vakhabov, A. Kh.; Yakubov, I. T.; Zaitova, A. Z.;
                          Rakhimov, M. M.
CORPORATE SOURCE:         USSR
SOURCE:                   Biologicheskie Nauki (Moscow) (1989), (2), 22-6
                          CODEN: BINKBT; ISSN: 0470-4606
DOCUMENT TYPE:            Journal
LANGUAGE:                 Russian
AB   Optimum conditions for introducing phospholipase A2 (I) label in tobacco
     mosaic virus (TMV) and enzyme properties of the conjugates were
     investigated.  I-TMV conjugates were prepared in pH9
     borate buffer using 2.5% glutaraldehyde as coupling
     agent followed by dialysis (2 days).  The conjugates had high I activity
     and could react with TMV antibodies.  The activity of I,
     following the conjugate formation decreased, the pH optimum shifted to
     acid zone, the thermostability of the enzyme increased, and temperature optimum
     somewhat increased.  The I-TMV conjugates may be useful for accelerated
     diagnosis of the virus.


=> FIL STNGUIDE
COST IN U.S. DOLLARS                              SINCE FILE      TOTAL
                                                     ENTRY    SESSION
FULL ESTIMATED COST                                  63.63      63.84

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)        SINCE FILE      TOTAL
                                                     ENTRY    SESSION
CA SUBSCRIBER PRICE                                  -0.80      -0.80

FILE 'STNGUIDE' ENTERED AT 08:05:25 ON 04 FEB 2008
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Feb  1, 2008 (20080201/UP).
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L12 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1962:9071 CAPLUS
DOCUMENT NUMBER: 56:9071
ORIGINAL REFERENCE NO.: 56:1735i,1736a
TITLE: A new two-stage method for cross-linking proteins
AUTHOR(S): Borek, Felix
CORPORATE SOURCE: Armed Forces Inst. of Pathol., Washington, DC
SOURCE: Nature (London, United Kingdom) (1961), 191, 1293-4
CODEN: NATUAS; ISSN: 0028-0836
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB Ferritin and rabbit globulin in citrate buffer (pH 5) were stirred at 4° with dianisidine (I) and $NaNO_2$ in 0.017N HCl for 2 hrs., dialyzed against 0.08M borate (pH 9.4) and finally against neutral saline to yield after separation by electrophoresis a conjugate of intermediate mobility, which reacted with both antiferritin and antirabbit globulin. Similar conjugates prepared from tobacco mosaic antibodies and Forssman antibodies using I had higher antibody activity than those prepared using toluene 2,4-diisocyanate.

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=> antibody
        323887 ANTIBODY
        386791 ANTIBODIES
L17     513393 ANTIBODY
                 (ANTIBODY OR ANTIBODIES)

=> L16 and L17
L18          72 L16 AND L17

=> cross (l) linking
        545016 CROSS
         20121 CROSSES
        562293 CROSS
                 (CROSS OR CROSSES)
         48753 LINKING
           531 LINKINGS
         49166 LINKING
                 (LINKING OR LINKINGS)
L19      14956 CROSS (L) LINKING

=> L19 and L18
L20           0 L19 AND L18

=> purification and L19
        349143 PURIFICATION
          1135 PURIFICATIONS
        349930 PURIFICATION
                 (PURIFICATION OR PURIFICATIONS)
        317115 PURIFN
           238 PURIFNS
        317219 PURIFN
                 (PURIFN OR PURIFNS)
        513631 PURIFICATION
                 (PURIFICATION OR PURIFN)
L21        226 PURIFICATION AND L19

=> purification
        349143 PURIFICATION
          1135 PURIFICATIONS
        349930 PURIFICATION
                 (PURIFICATION OR PURIFICATIONS)
        317115 PURIFN
           238 PURIFNS
        317219 PURIFN
                 (PURIFN OR PURIFNS)
L22     513631 PURIFICATION
                 (PURIFICATION OR PURIFN)

=> L22 and l18
L23           1 L22 AND L18

=> L22 and L16
L24          14 L22 AND L16

=> alkaline (w) buffer
        129566 ALKALINE
            79 ALKALINES
        129632 ALKALINE
                 (ALKALINE OR ALKALINES)
        433088 ALK
           672 ALKS
        433448 ALK
                 (ALK OR ALKS)
        472508 ALKALINE
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                (ALKALINE OR ALK)
        243802 BUFFER
         35613 BUFFERS
        262799 BUFFER
                (BUFFER OR BUFFERS)
L25       1120 ALKALINE (W) BUFFER

=> L25 and L16
L26          3 L25 AND L16

=> D L26 IBIB ABS 1-3

L26  ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2007:510230  CAPLUS
DOCUMENT NUMBER:          146:496398
TITLE:                    RNA extraction and detection method and deactivating
                          an RNase in a sample
INVENTOR(S):              Tonoike, Hiroshi; Shirasaki, Yoshinari; Nishimura,
                          Naoyuki; Tamatsukuri, Shigeru; Watanabe, Kuhomi;
                          Sakakura, Yasuhiko; Nakayama, Hiroyuki
PATENT ASSIGNEE(S):       Shimadzu Corporation, Japan
SOURCE:                   PCT Int. Appl., 59pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 Japanese
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
     ---------------      ----   --------    --------------------     --------
     WO 2007052765         A1    20070510    WO 2006-JP322010         20061102
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN,
             KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK,
             MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
             RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,
             TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
PRIORITY APPLN. INFO.:                       JP 2005-319332      A  20051102
                                             JP 2005-319333      A  20051102
                                             JP 2005-319334      A  20051102
                                             JP 2006-116310      A  20060420
AB   Disclosed is a method for deactivating an RNase which generally occurs in
     a sample such as a biol. sample (particularly, an excrement sample) or a
     living body-derived sample prepared by separation of an RNA-containing
material or
     the like from the biol. sample (particularly, an excrement-derived
     sample). Also disclosed is a method for extraction or detection of RNA from or
     in the sample. The RNA extraction method comprises the steps of: preparing a
     mixture of a sample containing an RNA-containing material and an RNase and an
alkaline
     treatment reagent comprising at least a reducing agent under heating
     conditions, wherein the mixture has a pH value of 8.1 or higher. The method
     also comprises maintaining the mixture under the same heating conditions as
     those employed in the preceding step to achieve the deactivation of the
     RNase and the extraction of RNA from the RNA-containing material. The RNA
     detection method comprises the steps of: mixing a sample treatment solution
     containing the RNA extracted by the RNA extraction method and a amplification
reaction
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solution; and performing an RNA amplification reaction.
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:238281 CAPLUS
DOCUMENT NUMBER: 147:110944
TITLE: Evaluation of two viral extraction methods for the detection of human noroviruses in shellfish with conventional and real-time reverse transcriptase PCR
AUTHOR(S): Baert, L.; Uyttendaele, M.; Debevere, J.
CORPORATE SOURCE: Laboratory of Food Microbiology and Food Preservation, Department of Food Safety and Food Quality, Faculty of Bioscience Engineering, Ghent University, Ghent, Belg.
SOURCE: Letters in Applied Microbiology (2007), 44(1), 106-111
CODEN: LAMIE7; ISSN: 0266-8254
PUBLISHER: Blackwell Publishing Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two viral extraction methods were compared in order to establish a sensitive and simple detection method for human noroviruses (NV) in bivalve shellfish. A direct RNA extraction method and an alkaline virus elution-concentration method were tested on artificially contaminated mussels. The latter used an alk. buffer and polyethylene glycol (PEG) to isolate and concentrate the virus particles from shellfish. In both methods Trizol was used to release RNA. The final RNA exts. were amplified and detected with conventional and real-time reverse transcriptase PCR. The direct RNA extraction method was not able to detect low inoculation levels. However, the virus elution-concentration method was more sensitive. The alkaline elution-PEG concentration method followed by Trizol effectively removed inhibitory components and fulfilled the demands to be a useful tool for routine testing of shellfish for NV detection. Because of the lack of standardized methods to detect NV in shellfish, many 'inhouse' extraction methods are used in practice. A comparison of these methods aims to determine a simple, rapid, and sensitive method that could be a candidate method for screening suspected shellfish.
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:857770 CAPLUS
DOCUMENT NUMBER: 141:328130
TITLE: Dilution liquid for norovirus or sapovirus test sample, and method for detecting virus
INVENTOR(S): Kamata, Kunio; Kato, Daisuke
PATENT ASSIGNEE(S): Denka Seiken Co., Ltd., Japan
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004088311	A1	20041014	WO 2004-JP4687	20040331

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,

BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

JP 2004301684	A	20041028	JP 2003-95349	20030331
JP 3887340	B2	20070228		
US 2006216695	A1	20060928	US 2005-551548	20050930
PRIORITY APPLN. INFO.:			JP 2003-95349 A	20030331
			WO 2004-JP4687 W	20040331

AB A dilution liquid for a Norovirus or Sapovirus test sample is provided, which comprises an alk. buffer solution having a pH of 9.0 to 10.0. Also provided is a method for detecting Norovirus or Sapovirus by an immunoassay using this test sample dilution liquid The method allows Norovirus or Sapovirus to be detected from a Norovirus or Sapovirus test sample such as a feces sample, a vomiting sample, a body fluid sample, a blood sample, a body tissue sample or a food sample in an easy and simple manner, without the use of a special device such as a centrifuge, with improved accuracy, and with complete removal of nonspecific factors.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D L23 IBIB ABS

L23 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:275428 CAPLUS

DOCUMENT NUMBER: 145:370346

TITLE: Detection of norovirus capsid proteins in fecal and food samples by a real time immuno-PCR method

AUTHOR(S): Tian, P.; Mandrell, R.

CORPORATE SOURCE: United States Department of Agriculture, Agricultural Research Service, Produce Safety and Microbiology Research Unit, Western Regional Research Center, Albany, CA, USA

SOURCE: Journal of Applied Microbiology (2006), 100(3), 564-574
CODEN: JAMIFK; ISSN: 1364-5072

PUBLISHER: Blackwell Publishing Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The objective of this study was to develop a sensitive real time immuno-polymerase chain reaction (rtI-PCR) method for detecting norovirus (NV) capsid protein in food samples. The viral antigens were captured by two polyclonal antisera against recombinant Norwalk viral-like particles (rNVLPs). Biotin-conjugated antibodies, avidin and biotin-conjugated DNA reporter were used to convert the protein signals into DNA signals. The reporter DNA was then amplified by addition of primers and PCR. A real time PCR method was used in order to perform a quant. post-PCR anal. One hundred rNVLPs (10 fg) and a NV sample containing 660 rNVLPs equivalent particle units (66 fg) could be detected by this method. The PCR inhibitors present in the food samples had minimal effect on antigen capture and were removed by multiple wash steps during the rtI-PCR procedure. The sensitivity of rtI-PCR was >1000-fold higher than the standard ELISA and approx. 10 times higher than reverse transcription PCR in detection of NV capsid protein in stool and food samples. This is the first report of a rtI-PCR method to detect NV in contaminated food samples without concentration or purifn. of the virus.

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> D L24 IBIB ABS 1-14

L24 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:694564 CAPLUS
DOCUMENT NUMBER: 147:78665
TITLE: Method for effectively removing virus from suspended solid-containing water by combination of filtration and UV irradiation
INVENTOR(S): Kato, Toshiaki; Shibata, Toshiyuki; Miki, Satoru; Ito, Kimio
PATENT ASSIGNEE(S): Nippon Steel Corp., Japan; Nippon Steel Engineering Co., Ltd.
SOURCE: Jpn. Kokai Tokkyo Koho, 15pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007160165	A	20070628	JP 2005-357349	20051212

PRIORITY APPLN. INFO.: JP 2005-357349 20051212
AB To remove virus (e.g., coliphage, norovirus), suspended solid (SS)-containing water (e.g., sewage treatment water, seawater) is filtered to remove SS and then exposed to UV (in photocatalyst-equipped UV irradiation reflection vessel). Before the UV irradiation, oxidant chosen from H2O2, O3, and/or Cl compound is preliminary added to the filtered water, according to its turbidity.

L24 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:195721 CAPLUS
DOCUMENT NUMBER: 147:242206
TITLE: Waterborne norovirus outbreaks
AUTHOR(S): Maunula, Leena
CORPORATE SOURCE: Department of Food & Environmental Hygiene, Faculty of Veterinary Medicine, University of Helsinki, 00014, Finland
SOURCE: Future Virology (2007), 2(1), 101-112
CODEN: FVUIAM; ISSN: 1746-0794
PUBLISHER: Future Medicine Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review. Noroviruses (NoVs) are the most common nonbacterial causative agents of waterborne outbreaks. Due to the mild and short-lived disease of gastroenteritis, even large epidemics may go unnoticed, since patients do not necessarily visit a doctor. NoVs have several means by which to survive both in the environment and in a population. The nonenveloped small virus retains its infectivity in the environment, and particularly in cold water, for a long time. Unlike most enteric viruses, it causes disease both in children and adults. A large number of genotypes combined with a small infective dose and short-term immunity guarantee efficient circulation of these viruses. The world of NoVs has been revealed to us predominantly by mol. methods. Having learned to detect these viruses first in patients, the emphasis is now in searching for methods sensitive enough to find them in environmental samples. In this review, the latest methods and their use in monitoring of these viruses are discussed.
REFERENCE COUNT: 121 THERE ARE 121 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:1345537 CAPLUS
DOCUMENT NUMBER: 146:235176

TITLE: Presence of viral proteins in drinkable water - sufficient condition to consider water a vector of viral transmission?
AUTHOR(S): Gutierrez, M. F.; Alvarado, M. V.; Martinez, E.; Ajami, N. J.
CORPORATE SOURCE: Laboratorio de Virologia, Departamento de Microbiologia, Universidad Javeriana, Bogota, Colombia
SOURCE: Water Research (2007), 41(2), 373-378
CODEN: WATRAG; ISSN: 0043-1354
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In order to determine the role of water as a possible vector for transmission of the most prevalent enteric viruses affecting infantile populations, 226 water samples were collected from Facatativa's (Colombian municipality located 30 km away from Bogota) water works in the years 2000, 2002, and 2005. The samples were clarified and virus was concentrated by filtering and ultrafiltering techniques. The presence of viral protein (VP) was assessed by enzyme immunoassay method (EIA) and viral RNA presence was detected by reverse transcriptase and polymerase chain reaction (RT-PCR). Using these techniques, one sample pos. for Astrovirus (HAstV) was found in a sample collected from the river that supplies the aqueduct, two samples pos. for Norovirus (NV) from fresh treated potable water and 13 samples pos. for Rotavirus (RV), some in water from the plant during treatment and others from treated fresh water. RT-PCR inhibitors were also found in water samples obtained from the plant and in the fresh treated water. No inhibitors were found in the river water. VP, but no nucleic acid, was detected in the water samples at different stages of treatment, thus suggesting that the virus might have been complete and infectious at some stage prior to water purifn.
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:275428 CAPLUS
DOCUMENT NUMBER: 145:370346
TITLE: Detection of norovirus capsid proteins in fecal and food samples by a real time immuno-PCR method
AUTHOR(S): Tian, P.; Mandrell, R.
CORPORATE SOURCE: United States Department of Agriculture, Agricultural Research Service, Produce Safety and Microbiology Research Unit, Western Regional Research Center, Albany, CA, USA
SOURCE: Journal of Applied Microbiology (2006), 100(3), 564-574
CODEN: JAMIFK; ISSN: 1364-5072
PUBLISHER: Blackwell Publishing Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The objective of this study was to develop a sensitive real time immuno-polymerase chain reaction (rtI-PCR) method for detecting norovirus (NV) capsid protein in food samples. The viral antigens were captured by two polyclonal antisera against recombinant Norwalk viral-like particles (rNVLPs). Biotin-conjugated antibodies, avidin and biotin-conjugated DNA reporter were used to convert the protein signals into DNA signals. The reporter DNA was then amplified by addition of primers and PCR. A real time PCR method was used in order to perform a quant. post-PCR anal. One hundred rNVLPs (10 fg) and a NV sample containing 660 rNVLPs equivalent particle units (66 fg) could be detected by this method. The PCR inhibitors present in the food samples had minimal effect on antigen capture and were removed by multiple wash steps during the rtI-PCR procedure. The sensitivity of rtI-PCR was >1000-fold higher than the standard ELISA and approx. 10 times higher than reverse transcription PCR in

detection of NV capsid protein in stool and food samples. This is the first report of a rtI-PCR method to detect NV in contaminated food samples without concentration or purifn. of the virus.

REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:236156 CAPLUS
DOCUMENT NUMBER: 145:50522
TITLE: Effect of temperature on the survival of F-specific RNA coliphage, feline calicivirus, and Escherichia coli in chlorinated water
AUTHOR(S): Allwood, Paul B.; Malik, Yashpal S.; Maherchandani, Sunil; Hedberg, Craig W.; Goyal, Sagar M.
CORPORATE SOURCE: Division of Environmental and Occupational Health, School of Public Health, University of Minnesota, Minneapolis, MN, 55455, USA
SOURCE: International Journal of Environmental Research and Public Health (2005), 2(3-4), 442-446
CODEN: IJERGQ; ISSN: 1660-4601
URL: http://mdpi.org/subscribers/ijerph/papers3/ijerph2005030008.pdf
PUBLISHER: Molecular Diversity Preservation International
DOCUMENT TYPE: Journal; (online computer file)
LANGUAGE: English

AB We compared the survival of F-specific RNA coliphage MS2, feline calicivirus, and E. coli in normal tap water and in tap water treated to an initial concentration of 50 ppm free chlorine and held at 4°C, 25°C, or 37°C for up to 28 days. Our aim was to determine which of these two organisms (coliphage or E. coli) was better at indicating norovirus survival under the conditions of the experiment There was a relatively rapid decline of FCV and E. coli in 50 ppm chlorine treated water and both organisms were undetectable within one day irresp. of the temperature In contrast, FRNA phage survived for 7 to 14 days in 50 ppm chlorine treated water at all temps. All organisms survived for 28 days in tap water at 4°C, but FCV was undetectable on day 21 and day 7 at 25°C and 37°C, resp. Greater survival of FRNA phage compared to E. coli in 50 ppm chlorine treated water suggests that these organisms should be further investigated as indicators of norovirus in depurated shellfish, sanitized produce, and treated wastewater which are all subject to high-level chlorine treatment.

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1152840 CAPLUS
DOCUMENT NUMBER: 143:385958
TITLE: Method and apparatus for cleaning bivalves by discharging and killing norovirus using electrolyzed water, and judgement of cleaning performance of the method
INVENTOR(S): Murokoshi, Akira; Yoshimizu, Mamoru
PATENT ASSIGNEE(S): Yanmar Diesel Engine Co., Ltd., Japan; Marino Forum 21
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005295820	A	20051027	JP 2004-112914	20040407
PRIORITY APPLN. INFO.:			JP 2004-112914	20040407

AB Cleaning of bivalves is carried out by (1) placing the bivalves in a cleaning tank filled with cleaning water produced by electrolysis and (2) controlling temperature of the water at a range where the bivalves maintain physiol. activity to pass the water through the bivalves, discharge norovirus out of the bivalves together with water flow, and kill the discharged norovirus with the cleaning water. Alternatively, bivalves are cleaned by controlling temperature of the cleaning water at 20-43° to kill norovirus in the shells and that excreted from the shell. Apparatus for the method is also claimed. Cleaning performance of the methods is judged by applying the above method to bivalves to which feline calicivirus as substitute of norovirus is introduced. Opening of the shells of the cleaned bivalves and killing of norovirus in them may be carried out by heating them in a closed container at 30-50° and <10 MPa.

L24 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:1066181 CAPLUS
DOCUMENT NUMBER: 143:445964
TITLE: New generation molecular biology methods to detect pathogens in water
AUTHOR(S): Straub, Timothy M.; Valdez, Catherine O.; Bruckner-Lea, Cynthia J.
CORPORATE SOURCE: Pacific Northwest National Laboratory, Richland, WA, USA
SOURCE: Proceedings - Water Quality Technology Conference and Exhibition (2004), mon8.4/1-mon8.4/7
CODEN: PWQCD2; ISSN: 0164-0755
PUBLISHER: American Water Works Association
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
AB Mol. biol. methods such as PCR and hybridization have significantly decreased the length of time required for the detection of waterborne pathogens. For some waterborne agents like noroviruses, PCR and hybridization assays are the only reliable methods for their detection. The advantages gained by PCR have introduced new problems for applying these assays to detect waterborne pathogens. These problems include, but are not limited to: sample carryover contamination, difficulty in detecting potentially viable agents, and the difficulty in optimizing an assay to detect more than 1 pathogen or gene target per reaction. Gene chip technol. is now being widely reported as the solution for overcoming some of these shortfalls. The authors' research that is presented in this paper highlights both the benefits and drawbacks of using this relatively new mol. biol. technique. It concludes with several recommendations on how this method might be improved such that it becomes a more robust assay system in terms of speed, specificity and sensitivity and easier for end users to perform.
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:367972 CAPLUS
DOCUMENT NUMBER: 142:425891
TITLE: Production of soluble recombinant Norovirus RNA-independent RNA polymerase in insect cells via cation-exchange purification
INVENTOR(S): Takai, Reiko; Kojima, Shigeyuki; Hoshino, Fuminori; Kageyama, Tsutomu; Fukushi, Shuetsu
PATENT ASSIGNEE(S): BML Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005110517	A	20050428	JP 2003-345286	20031003

PRIORITY APPLN. INFO.: JP 2003-345286 20031003

AB A method for production of RNA-dependent RNA polymerase (RdRp) as a soluble protein is provided. The method comprises the below-mentioned process (1) recombinant baculovirus transfected with the nucleic acid encoding RdRp is used to infect the insect origin cells (2) the infected insect origin cells are cultured (3) the extract of the infected insect origin cells is contacted with cation-exchange resin and eluted with the salt concentration gradient, from in this eluent, the RdRp is isolated. Crude extract of Tn5 cells infected with recombinant baculovirus was applied to the Hi-Trap SP column (cation-exchange column), and when eluted with the linear gradient of NaCl, RdRp was recognized in 320-550mM NaCl fraction.

L24 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:345569 CAPLUS
DOCUMENT NUMBER: 143:401540
TITLE: Characterization of the norovirus 3C-like protease
AUTHOR(S): Someya, Yuichi; Takeda, Naokazu; Miyamura, Tatsuo
CORPORATE SOURCE: Department of Virology II, National Institute of Infectious Diseases, 1-23-1 Toyama, Shinjuku, Tokyo, 162-8640, Japan
SOURCE: Virus Research (2005), 110(1-2), 91-97
CODEN: VIREDF; ISSN: 0168-1702
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The recombinant 3C-like protease of Chiba virus, a Norovirus, expressed in Escherichia coli cells was purified and characterized as to effects of pH, temperature, salt contents, and SH reagents on its proteolytic activity. The optimal pH and temperature of the 3C-like protease for the proteolytic activity were 8.6 and 37 °C, resp. Increased concentration (.apprx.100 mM) of monovalent cations such as Na+ and K+ was inhibitory to the activity. Hg2+ and Zn2+ remarkably inhibited the protease activity, while Mg2+ and Ca2+ had no virtual effect. Several sulfhydryl reagents such as p-chloromercuribenzoic acid, Me methanethiosulfonate, N-ethylmaleimide and N-phenylmaleimide also blocked the activity, confirming the previous result that cysteine residue(s) were responsible for the proteolysis.

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:763949 CAPLUS
DOCUMENT NUMBER: 141:400247
TITLE: Detection of enteric viruses, Giardia and Cryptosporidium in two different types of drinking water treatment facilities
AUTHOR(S): Ali, M. A.; Al-Herrawy, A. Z.; El-Hawaary, S. E.
CORPORATE SOURCE: Environmental Virology Laboratory, Department of Water Pollution Researches, National Research Centre, Cairo, 12311, Egypt
SOURCE: Water Research (2004), 38(18), 3931-3939
CODEN: WATRAG; ISSN: 0043-1354
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Two types of drinking water treatment facilities (2 conventional drinking water treatment plants (DWTPs) and 2 compact units (Cus)) were compared referring to their production capacity. Water samples were collected from 3 main points: (a) different water treatment steps (b) washings of sand

filters and (c) distribution system at different distances from the water treatment plants. Both viruses and protozoa were concentrated from each water sample by adsorption and accumulation on the same nitrocellulose membrane filters (0.45 μm pore size). Enteroviruses were detected by plaque infectivity assay in BGM cells and HAV, HEV and Norovirus were detected by RT-PCR. Giardia and Cryptosporidium were detected by conventional staining methods and PCR. The results revealed that enterovirus load at the intake is 10-15 PFU/L for the 2 compact units and 4.5-75 PFU/L for the 2 conventional DWTPs. The virus load in distribution system of the 1st type DWTPs at 1 Km from the plant was the same as that of the intake. Viruses in the other type of treatment plants CUs at 1, 5 and 7 Km, were much reduced. Examination of raw water sediments of the 2 DWTPs showed enterovirus counts 12-17.5 PFU/L. Virus count was reduced in sand of filters after washing. Giardia cysts were equally detected by microscopy and PCR in only intake samples of EL-Hawamdia CU (33.3%) and Meet Fares DWTP (50%). Cryptosporidium oocysts were equally detected by microscopy and PCR in intake samples of Abo EL-Nomros CU (100%), EL-Hawamdia CU (66.7%) and Fowa DWTP (50%). At Meet Fares DWTP 3 pos. intake samples for Cryptosporidium were detected by PCR, compared with only 2 pos. samples by microscopy. Giardia cysts and Cryptosporidium oocysts were detected in raw water sediment and sand of filters before washing. Only one sample from Meet Fares DWTP sand of filters after washing was pos. for both Giardia and Cryptosporidium. It can be concluded that the poor microbial quality of the water may be due to improper operational skills and management of the various water treatment plants (especially at the 2 high capacity treatment plants).

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:709504 CAPLUS

DOCUMENT NUMBER: 139:327663

TITLE: Calicivirus - An emerging contaminant in water: State of the art

AUTHOR(S): Huffman, Debra E.; Nelson, Kara L.; Rose, Joan B.

CORPORATE SOURCE: College of Marine Science, University of South Florida, St. Petersburg, FL, 33701, USA

SOURCE: Environmental Engineering Science (2003), 20(5), 503-515
CODEN: EESCF5; ISSN: 1092-8758

PUBLISHER: Mary Ann Liebert, Inc.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. There was a noteworthy surge of interest with regard to the viruses known as human Caliciviruses (HuCVs) and their impact on water-borne disease. Recent epidemiol. studies in Europe combined with an active waterborne disease surveillance system in the United States has identified the Norovirus, a member of the HuCVs, as a prominent agent of waterborne disease. Current ests. suggest that upwards of 95-96% of nonbacterial gastroenteritis outbreaks of unidentified etiol. may be due to HuCV. Moreover, there were a number of documented waterborne outbreaks of Norovirus both in the United States as well as abroad. It is with the advent of advanced mol. techniques that we have begun to develop a strategy for the detection of this organism in various water matrixes. However, because HuCV have not yet been cultured in the laboratory, it is difficult to conduct research on their fate in the environment and their removal or inactivation during water and wastewater treatment processes. Therefore, alternative approaches have included using recombinant Norwalk virus particles, indirect measures of inactivation based on mol. methods, or the culturable Feline Calicivirus as a surrogate. Results from these studies raise concerns about the mobility of HuCV in groundwater and their resistance to chlorine and monochloramine, and suggest that UV radiation may be an effective

inactivation method. Addnl. research is needed to confirm these results and the methods employed as well as to investigate other treatment processes and environmental conditions.

REFERENCE COUNT: 85 THERE ARE 85 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:552366 CAPLUS
DOCUMENT NUMBER: 139:234871
TITLE: Reduction of Norwalk virus, Poliovirus 1, and bacteriophage MS2 by ozone disinfection of water
AUTHOR(S): Shin, Gwy-Am; Sobsey, Mark D.
CORPORATE SOURCE: Department of Environmental Sciences and Engineering, University of North Carolina at Chapel Hill, Chapel Hill, NC, 27599-7400, USA
SOURCE: Applied and Environmental Microbiology (2003), 69(7), 3975-3978
CODEN: AEMIDF; ISSN: 0099-2240
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Norwalk virus and other human caliciviruses (noroviruses) are major agents of gastroenteritis, and water is a major route of their transmission. In an effort to control Norwalk virus in drinking water, Norwalk virus reduction by bench-scale ozone disinfection was determined using quant. reverse transcription (RT)-PCR for virus assays. Two other enteric viruses, Poliovirus 1 and coliphage MS2, were included for comparison, and their redns. were assayed by infectivity assays as well as by RT-PCR. Virus redns. by ozone were determined using a dose of 0.37 mg ozone/L at pH 7 and 5° for ≤5 min. Based on two RT-PCR assays, the redns. of Norwalk virus were >3 log10 within a contact time of 10 s, and these were similar to the redns. of the other 2 viruses determined by the same assay methods. The virus redns. detected by RT-PCR assays were similar to those detected by infectivity assays, indicating that the RT-PCR assay is a reliable surrogate assay for both culturable and nonculturable viruses disinfected with ozone. Overall, the results indicate that Norwalk virus as well as other enteric viruses can be reduced rapidly and extensively by ozone disinfection and that RT-PCR is a useful surrogate assay for both culturable and nonculturable viruses disinfected with ozone.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:542916 CAPLUS
DOCUMENT NUMBER: 139:168840
TITLE: Molecular detection of Norwalk viruses in drinking water by filtration-elution methods using an alternative amino acid eluent
AUTHOR(S): Hill, Vincent R.; Wu, Ming-Jing; Hamidjaja, Radi; Sobsey, Mark D.
CORPORATE SOURCE: Division of Consolidated Laboratory Services, Virginia Department of General Services, Richmond, VA, 23219, USA
SOURCE: Proceedings - Water Quality Technology Conference (2002) 672-683
CODEN: PWQCD2; ISSN: 0164-0755
PUBLISHER: American Water Works Association
DOCUMENT TYPE: Journal; (computer optical disk)
LANGUAGE: English
AB Norwalk and other Noroviruses are being increasingly recognized as major contributors to the disease burden caused by contaminated water supplies. Improved methods for the detection and quantitation of these microbes in water is essential for performing disease outbreak investigations and developing monitoring strategies for management efforts

to minimize human exposures to contaminated water. Filtration-adsorption is commonly used to recover and concentrate these viruses from large vols. of water, but some research suggests that commonly-used beef extract-based filter elution solns. contain substances that inhibit reverse transcriptase-polymerase chain reaction (RT-PCR) assays for detecting these viruses. The results of this study indicate that a simple, well-defined eluent composed of L-lysine, and the detergent, Triton X-100, was an effective alternative to eluents containing beef extract No significant differences in Norwalk Virus recovery were measured between the lysine- and beef extract-based eluents when virus RNA was heat-released from eluent concs. of tap water expts. When the filtration-elution method was applied to tap water seeded with approx. 103 Norwalk viruses, the lysine-based eluent was found to yield significantly greater recoveries of Norwalk viruses than 3% beef extract, 0.05 M glycine (pH 9.5). Data from filtration-elution expts. with seeded surface water also indicated that the lysine-based eluent achieved similar or greater recoveries of Norwalk viruses compared to the beef extract-based eluent. The results from this study show that a high-molar lysine eluent can be an effective alternative to beef extract eluents for detecting relatively low levels of Norwalk viruses in tap water and surface water samples.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:455223 CAPLUS

DOCUMENT NUMBER: 139:303662

TITLE: Trans-activity of the norovirus Camberwell proteinase and cleavage of the N-terminal protein encoded by ORF1

AUTHOR(S): Seah, Ee Ling; Marshall, John A.; Wright, Peter J.

CORPORATE SOURCE: Dept. of Microbiology, Monash Univ., Victoria, 3800, Australia

SOURCE: Journal of Virology (2003), 77(12), 7150-7155
CODEN: JOVIAM; ISSN: 0022-538X

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The virus-encoded proteinase of Camberwell virus, a genogroup 2 norovirus, was synthesized in Escherichia coli. The purified proteinase had correct N and C termini and showed trans activity in cell-free assays. Trans activity was also demonstrated in COS cells transfected with constructs encoding either the proteinase or a proteinase-polymerase fusion. The N-terminal protein of ORF1 was cleaved in COS cells, possibly at the site E194/S.

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